

16. (Original) Apparatus according to claim 10 including capacitive coupling between the source of alternating ionizing voltage and at least one of the pair of electrodes for supplying time-varying voltage of alternating polarities to the electrodes for self-balancing the generation of positive and negative ions within the gap.

17. (Original) Apparatus according to claim 10 in which the gap is aerodynamically configured for passing flowing gas therethrough substantially unimpeded.

18. (Currently Amended) Apparatus for generating positive and negative ions comprising:

electrode means for forming a gap through which flowing air may pass; and

source means coupled to the electrode means for supplying thereto alternating ionizing voltage at a selected frequency for which generated ions are ~~maintained~~ substantially concentrated centrally within the gap.

19. (Previously Presented) Apparatus for generating positive and negative ions comprising:

electrode means for forming a gap;

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*map*

19. (Previously Presented) Apparatus for generating positive and negative ions comprising:

electrode means for forming a gap;

source means coupled to the electrode means for supplying thereto alternating ionizing voltage at a selected frequency for which generated ions are maintained substantially centrally within the gap, the frequency being selected as:

$$\mu * V(t) / G^2,$$

where  $\mu$  is ion mobility,  $V(t)$  is the ionizing voltage, and  $G$  is the dimension of the gap.

20. (Original) Apparatus according to claim 18 in which the source means is capacitively coupled to the electrode means.

21. (Original) Apparatus according to claim 18 in which generated ions are selectively transported from within the gap.

22. (Original) Apparatus according to claim 21 in which the generated ions are transported in response to an electrostatic field disposed in proximity to the gap.